



# X3-HYBRID G4 (THREE PHASE)

X3-Hybrid-5.0-D    X3-Hybrid-6.0-D    X3-Hybrid-8.0-D    X3-Hybrid-10.0-D    X3-Hybrid-12.0-D    X3-Hybrid-15.0-D  
X3-Hybrid-5.0-M    X3-Hybrid-6.0-M    X3-Hybrid-8.0-M    X3-Hybrid-10.0-M    X3-Hybrid-12.0-M    X3-Hybrid-15.0-M

| <b>INPUT (DC)</b>                                |   |         |          |          |          |          |
|--|---|---------|----------|----------|----------|----------|
| Max. recommended PV power[W]                     | 8000  | 10000   | 12000    | 15000    | 18000    | 18000    |
| Max. DC voltage [V]                              | 1000  |         |          |          |          |          |
| Nominal DC operating voltage [V]                 | 630   |         |          |          |          |          |
| Max. input current (input A/input B) [A]         | 14/14   | 14/14   | 26/14    | 26/14    | 26/14    | 26/14    |
| Max. short circuit current (input A/input B) [A] | 16/16   | 16/16   | 30/16    | 30/16    | 30/16    | 30/16    |
| MPPT voltage range[V]                            | 180-950   |         |          |          |          |          |
| Start operating voltage[V]                       | 200   |         |          |          |          |          |
| No. of MPP trackers / Strings per MPP tracker    | 2(1/1)  | 2(1/1)  | 2(2/1)   | 2(2/1)   | 2(2/1)   | 2(2/1)   |
| <b>INPUT AC</b>                                  |   |         |          |          |          |          |
| Max. apparent AC power[VA]                       | 10000   | 12000   | 16000    | 20000    | 20000    | 20000    |
| Max. AC current[A]                               | 16.1  | 19.3    | 25.8     | 32.0     | 32.0     | 32.0     |
| Nominal grid voltage(AC voltage range)[V]        | 415/240; 400/230; 380/220   |         |          |          |          |          |
| Nominal grid Frequency/range[Hz]                 | 50/60   |         |          |          |          |          |
| <b>OUTPUT AC</b>                                 |   |         |          |          |          |          |
| Nominal AC power [VA]                            | 5000  | 6000    | 8000     | 10000    | 12000    | 15000    |
| Max. apparent AC power [VA]                      | 5500  | 6600    | 8800     | 11000    | 13200    | 15000    |
| Nominal grid voltage(AC voltage range) [V]       | 415/240; 400/230; 380/220   |         |          |          |          |          |
| Nominal grid frequency/range [Hz]                | 50/60   |         |          |          |          |          |
| Nominal AC current [A]                           | 7.2   | 8.7     | 11.6     | 14.5     | 17.5     | 21.8     |
| Max. AC current [A]                              | 8.1   | 9.7     | 12.9     | 16.1     | 19.3     | 24.1     |
| Displacement power factor                        | 0.8 leading ... 0.8 lagging   |         |          |          |          |          |
| THDi, rated power [%]                            | <3  |         |          |          |          |          |
| <b>OUTPUT DC (BATTERY)</b>                       |   |         |          |          |          |          |
| Battery type                                     | Lead-acid/Lithium   |         |          |          |          |          |
| Battery voltage range [V]                        | 180-650   |         |          |          |          |          |
| Recommended battery voltage[V]                   | 400   |         |          |          |          |          |
| Max. continuous charge/discharge current [A]     | 30  |         |          |          |          |          |
| Communication interfaces                         | CAN/RS485   |         |          |          |          |          |
| Reverse connect protection                       | Yes   |         |          |          |          |          |
| <b>OFF-GRID OUTPUT (WITH BATTERY)</b>            |   |         |          |          |          |          |
| MAX. continuous apparent power [VA]              | 5000  | 6000    | 8000     | 10000    | 12000    | 15000    |
| Rated voltage[V],Frequency [Hz]                  | 400/230VAC; 50/60   |         |          |          |          |          |
| MAX. continuous current [A]                      | 7.2   | 8.7     | 11.6     | 14.5     | 17.5     | 21.8     |
| Peak apparent power [VA] Duration[s]             | 7500 60   | 9000 60 | 12000 60 | 15000 60 | 15000 60 | 15000 60 |
| Changeover time [ms]                             | <10   |         |          |          |          |          |
| THDv, linear Load [%]                            | <3  |         |          |          |          |          |
| <b>EFFICIENCY</b>                                |   |         |          |          |          |          |
| MPPT efficiency [%]                              | 99.9  |         |          |          |          |          |
| Euro efficiency [%]                              | 97.7  |         |          |          |          |          |
| Max. efficiency [%]                              | 98.0  |         |          |          |          |          |
| Battery charge/discharge efficiency [%]          | 98.5/97.0   |         |          |          |          |          |
| <b>POWER CONSUMPTION</b>                         |   |         |          |          |          |          |
| Standby consumption (Night) [W]                  | <20W for hot standby,<3W for cold standby                                       |         |          |          |          |          |
| <b>STANDARD</b>                                  |   |         |          |          |          |          |
| Safety   | IEC62109-1/IEC62109-2   |         |          |          |          |          |
| EMC  | EN61000-6-1/EN61000-6-2/EN61000-6-3   |         |          |          |          |          |
| Certification                                    | VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 / G98 / G99 / AS4777 / EN 50549 / CEI 0-21 |         |          |          |          |          |
| <b>ENVIRONMENT LIMIT</b>                         |   |         |          |          |          |          |
| Degree of protection(according to IEC60529)      | IP65  |         |          |          |          |          |
| Operating temperature range [°C]                 | -35~+60 (derating at +45, charge derating at +35)                               |         |          |          |          |          |
| Max. operation altitude [m]                      | ≤3000   |         |          |          |          |          |
| Humidity [%]                                     | 0-100 (condensing)  |         |          |          |          |          |
| Storage temperature [°C]                         | -35~+60   |         |          |          |          |          |
| Typical noise emission [dB]                      | 40  | 40      | 40       | 40       | 60       | 60       |
| <b>DIMENSION AND WEIGHT</b>                      |   |         |          |          |          |          |
| Dimensions(WxHxD) [mm]                           | 482*417*181   |         |          |          |          |          |
| Weight[kg]                                       | 30  |         |          |          |          |          |
| Cooling concept                                  | Natural   | Natural | Natural  | Natural  | Fan      | Fan      |
| Topology   | Non-isolated  |         |          |          |          |          |
| Communication interfaces                         | Meter/ CT, external control RS485, Pocket series (optional), DRM,USB            |         |          |          |          |          |
| LCD display                                      | Backlight 20*4 character  |         |          |          |          |          |
| Standard warranty [years]                        | 10  |         |          |          |          |          |